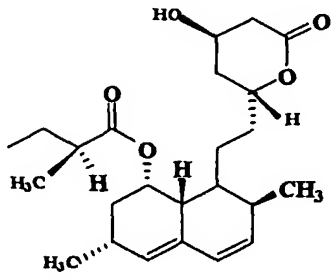
V

Claims:

1. A method for lactonisation and isolation of Lovastatin of formula (I):



(I)

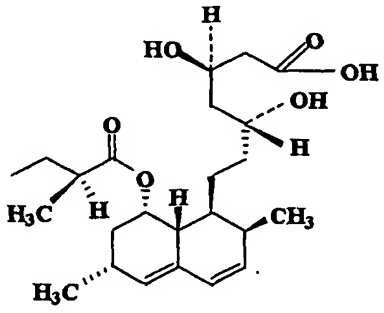
which comprises the steps of :

a) adjusting the pH of a fermentation broth containing mevinolinic acid (II) at 3.5 ± 0.1 with a mineral acid, and optionally filtering the fermentation broth,

b) adding a hydrophobic solvent to the aqueous fermentation broth or the mycelia cake and bubbling an inert gas into the biphasic mixture,

c) heating the fermentation broth or the mycelia cake at 55 ± 5°C, in the presence of a hydrophobic solvent,carrying out lactonisation of mevinolinic acid (II) and extracting f Lovastatin (I) into a hydrophobic solvent, concurrently, in a time period between 12 - 19 hours, under constant nitrogen bubbling,

d) isolating impure Lovastatin (I) from said hydrophobic solvent,



(II)

e) purifying impure Lovastatin (I) by dissolving impure Lovastatin (I) in a chlorinated solvent followed by removal of suspended resinous impurities by filtration, adding a hydrophobic solvent, heating the mixture to 55 ± 5°C, evaporating the chlorinated solvent followed by crystallization from a hydrophobic solvent to give pure Lovastatin (I), or by dissolving Lovastatin(I) in

a mixture of a chlorinated solvent and a hydrophobic solvent, filtering the suspended impurities, and heating the mixture to 55 ± 5°C, followed by evaporating the chlorinated solvent and crystallizing from the hydrophobic solvent to give pure Lovastatin (I),

f) recrystallising Lovastatin (I), from an aliphatic alcohol, by heating Lovastatin (I) with an aliphatic alcohol between 65 to 75°C for 30 minutes, cooling the mixture between –5 to +5°C and filtering crystalline Lovastatin (I) followed by drying at 35-40°C to give pure Lovastatin (I), substantially free from impurities and conforming to pharmacopoeial specification.

2. A method as claimed in claim 1, wherein said pure Lovastain is further purified by heating said pure Lovastatin in the presence of alumina in a water miscible solvent at a temperature in the range of 50-60°C, filtering the mixture and crystallizing extrapure Lovastatin(I) conforming to pharmacopoeial specification.

3. A method as claimed in claim 1, wherein said steps of lactonisation and concurrent extraction by a hydrophobic solvent are carried out in a time period of not more than 20 hours,

4. A method as claimed in any preceding claim 1, wherein the acid used for adjusting the pH is a mineral acid.

5. A method as claimed in claim 4, wherein said mineral acid is hydrochloric acid, sulphuric acid, nitric acid or orthophosphoric acid.

6. A method as claimed in any preceding claim 1, wherein said hydrophobic solvent is selected from aliphatic hydrocarbon, aromatic hydrocarbon, and chlorinated hydrocarbon.

7. A method as claimed in any preceding claim, wherein said lactonisation of melvinolinic acid (II) and extraction of Lovastatin (I) is carried out at a temperature in the range of 50-60°C,

8. A method as claimed in any preceding claim wherein the inert gas bubbled in the reaction medium is selected from nitrogen, argon and helium.

9. A method as claimed in any preceding claim , wherein said chlorinated solvent required for dissolving impure Lovastatin (I) is selected from dichloromethane, 1,2-dichloroethane and chloroform.

10. A method as claimed in any preceding claim wherein said aliphatic alcohol employed for recrystallisation of Lovastatin (1) is isopropanol.

11. A method as claimed in claim 2, wherein the water miscible solvent is selected from ketonic solvent and an alcoholic solvent.

12. A method as claimed in claim 11, wherein said ketonic solvent is acetone.

13. A method as claimed in claim 12 , wherein said alcoholic solvent is isopropanol.

14. A method as claimed in claim 2 , wherein said alumina is selected from acidic alumina, basic alumina, neutral alumina.